

5 **APPARATUS AND METHOD FOR ACHIEVING A DESIREABLE
FEED/CATALYST CONTACTING CONDITION IN FLUID CATALYTIC
CRACKING UNITS**

10 **ABSTRACT OF THE DISCLOSURE**

 A feed nozzle assembly located near the bottom
of an FCC riser reactor includes a plurality of feed
nozzles, each feed nozzle including a discharge end which
15 is angled toward the center of the riser. The angled
discharged ends provide a combined discharge of
hydrocarbon feed and atomization gas into the central
portion of the riser thereby providing a desirable
feed/catalyst contact condition while preventing
20 impingement of the feed upon the riser walls.